



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Stephen R. Foltyn

Serial No.: 10/624,855

Examiner

C. Cooke

Filed : July 21, 2003

Art Unit:

1754

For : BUFFER LAYER FOR THIN FILM  
STRUCTURES

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

### DECLARATION UNDER 37 CFR 1.132

Sir:

I, Stephen R. Foltyn, hereby state that

I received a Bachelor of Science degree in Physics in 1976 from the University of Missouri at Rolla; and, a Master's of Science degree in Physics in 1979 from the University of Missouri at Rolla.

Since 1980, I have been employed at Los Alamos National Laboratory as a Staff Member and since 1989 have been actively engaged in research on high temperature superconductive materials at Los Alamos National Laboratory.

I am one of the joint inventors of the subject matter described and claimed in the above-referenced US patent application serial number 10/624,855, together with the other joint inventors of Quanxi Jia, Paul N. Arendt and Haiyan Wang, filed on July 21, 2003 for Buffer Layer for Thin Film Structures;

I understand that claims 14-17, 19 and 20 of this application have been rejected as obvious over Jia (U.S. Patent 6,756,139) in view of Bruchhaus (WO 03/021656) for the reasons that Jia teaches a strontium ruthenate layer and a YBCO layer and that Bruchhaus

teaches substitution of strontium ruthenate enriched with TiO<sub>2</sub> in place of strontium ruthenate alone.

I conducted the deposition of the layers of a mixture of strontium titanate and strontium ruthenate described in examples 1 to 4 of US patent application serial number 10/624,855. After deposition of the layers, the samples were analyzed by x-ray diffraction and transmission electron microscopy. From the analysis of the samples, I concluded that the data showed essentially a single phase material for those layers deposited from a mixture of strontium titanate and strontium ruthenate with no indication of any secondary phases such as present in Bruchhaus.

All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.



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Stephen R. Foltyn

6/19/06

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Date